

Work Order ID 85795

June-15-12 10:48:46 AM

ASAP

85795

Page 1

Item ID: D4151-043

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Basket Fwd Hardpoint Assembly, Upper

Start Date: 15/06/2012 Start Qty: 12.00 *12*

Cust Item ID:

Required Date: 22/06/2012 Req'd Qty: 12.00 *12*

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12/06/15 Tooling:

Run Start *NR1*

QC: Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4151	C								
100		0.00							
100									
Small Fab	Memo	0.00							
Small Fab	1- Assemble as per dwg								
110	QC5- Inspect part completeness to step on W/O	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	Identify as per dwg & Stock Location 103	0.00							
120									
Packaging	Memo	0.00							
Packaging									

120

12/07/06

8.17/07/06

12

PD 12-07-06

12-7-10sf

Work Order ID 85795

June-15-12 10:48:46 AM

85795

Page 2

Item ID: D4151-043

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Basket Fwd Hardpoint Assembly, Upper

Start Date: 15/06/2012 Start Qty: 12.00

12

Cust Item ID:

Required Date: 22/06/2012 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC21- Final Inspection - Work Order Release

0.00

130

QC

Memo

0.00

Quality Control

CK 12/7/10

ME
12 07-10

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td style="width: 25%;">Skid-tube <input type="checkbox"/></td> <td style="width: 25%;">Crosstube <input type="checkbox"/></td> <td style="width: 25%;">Prod. Eng. Coord. <input type="checkbox"/></td> <td style="width: 25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>																
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Offset/Setup									
Other									
Process									
Supplier									
Training									
Unauthorized									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	Hardware <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong Drill Holes <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many	General <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material	<input type="checkbox"/> Set-up <input type="checkbox"/> Supplier <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other _____ _____ _____
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Picklist Print

June-15-12 10:48:49 AM

Page 1

Work Order ID: 85795

85795

Parent Item: D4151-043

D4151-043

Parent Item Name: Basket Fwd Hardpoint Assembly, Upper

Start Date: 15/06/2012

Required Date: 22/06/2012

Start Qty: 12.00

Required Qty: 12.00

Comments:

IPP Rev:A 10.06.24 new issue DD verf:EC

IPP Rev:B 10.07.22 as per revB DD verf:JLM

IPP Rev:C

11.01.21 as per dwg revC DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4151-3 *D4151-3* Upper Hardpoint Plate		Manufactured	No			100	Each	10.0000	2	24			
				<u>Location</u>				<u>Loc Qty</u>					
				ST103				10					
					83459			10					
D4151-7 *D4151-7* Fwd Eyebolt Receiver (Upper)		Manufactured	No			100	Each	63.0000	1	12			
				<u>Location</u>				<u>Loc Qty</u>					
				ST099				27					
					85072			27					
				ST103				36					
					76307			10					
					82916			26					
AN4C13A *AN4C13A* BOLT		Purchased	No			100	Each	44.0000	2	24			
				<u>Location</u>				<u>Loc Qty</u>					
				ST357				44					
					120187			1					
					121827			43					

**

**

**

12/07/06
B85962
24x
12/07/06
12
12/07/06
24
12/07/06
24
M122141 (24x)

Picklist Print

June-15-12 10:48:49 AM

Page 2

Work Order ID: 85795

85795

Parent Item: D4151-043

D4151-043

Parent Item Name: Basket Fwd Hardpoint Assembly, Upper

Start Date: 15/06/2012

Required Date: 22/06/2012

Start Qty: 12.00

Required Qty: 12.00

MS21043-4

Purchased

No

100

Each

1,181.000

2

24

MS21043-4

**

Nut

Location

Loc Qty

Loc Code

FG

40

104603

40

ST301

1141

119546

115

120308

29

121162

497

121652

500

NAS1149C0432R

Purchased

No

100

Each

3,816.000

4

48

NAS1149C0432R

**

Washer

Location

Loc Qty

Loc Code

ST297

1102

117291

102

119124

1000

ST298

2714

121255

2714

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

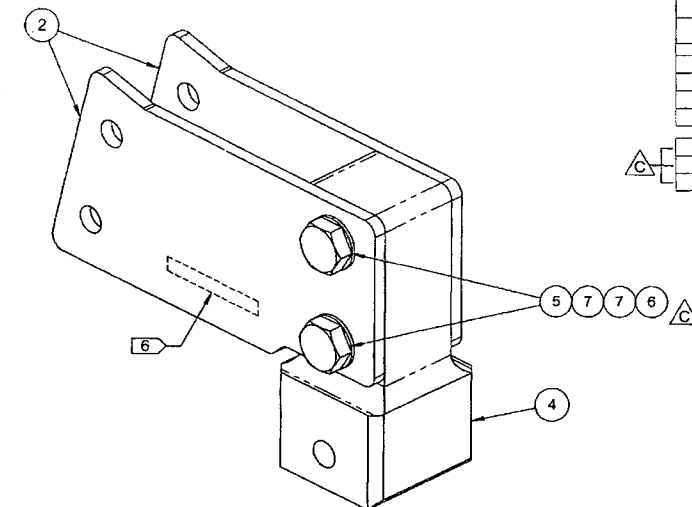
DQA: _____ Date: _____

QA Closed: _____ Date: _____

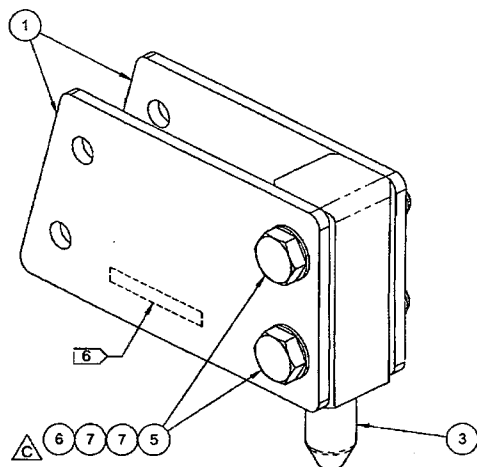
Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Other <input type="checkbox"/> </div> <div> Engineering Quality <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
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Offset/Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unauthorized <input type="checkbox"/>											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	Hardware <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong Drill Holes <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many	General <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing	<input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material	<input type="checkbox"/> Set-up <input type="checkbox"/> Supplier <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other _____ _____ _____

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D4151-041	BASKET FWD HARDPOINT ASSY (LOWER)
		X	D4151-043	BASKET FWD HARDPOINT ASSY (UPPER)
1	2		D4151-1	LOWER HARDPOINT PLATE
2		2	D4151-3	UPPER HARDPOINT PLATE
3	1		D4151-5	FWD BASKET INSTL STUD (LOWER)
4		1	D4151-7	FWD EYEBOLT RECEIVER (UPPER)
5	2	2	AN4C13A	BOLT
6	2	2	MS21043-4	NUT
7	4	4	NAS1149C0432R	WASHER



D4151-043 BASKET FWD HARDPOINT ASSY (UPPER)



D4151-041 BASKET FWD HARDPOINT ASSY (LOWER)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 85795 MLJ
12/06/15

RELEASED
2011-01-18

C	AM4 HARDWARE WAS AN3 (B6-1, C3-1 & D3-1); $\phi 0.252$ WAS $\phi 0.191$ (C5-2, D1-2); TIGHTENED TOL ON 1.000 DIM (C5-2, D1-2, C7-3, C3-3); $\phi 0.250$ WAS $\phi 0.191$ (C6-3, B4-3); 1.83 WAS 1.75 (C1-2), 2.84 WAS 2.78 (B3-3) AND 1.88 WAS 1.80 (C1-3) TO PRESERVE 1.5ED. REASON: SEE D407-797 DESIGN JOURNAL.	MB	10.12.14
B	ADDED D4151-5/-7 (SHT 3); D4151-5 WAS D3911-1 (ZN B6-1 & D3-1); D4151-7 WAS D3911-3 (ZN C4-1 & D3-1) ITEMS #5, 6 & 7 REPLACE MS20815-4M20 (ZN C3-1, D3-1 & B8-1); $\phi 0.191$ 2 PL REPLACES $\phi 0.129$ 3 PL (ZN C5-2); $\phi 0.191$ 2 PL REPLACES $\phi 0.129$ 4 PL (ZN D1-2) REASON: SEE TR-D350-607-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.22
REV.	DESCRIPTION	BY	DATE
DESIGN	1		
DRAWN	SC		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.12.14		

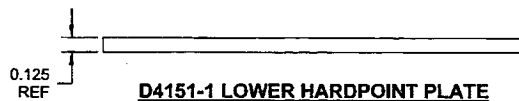
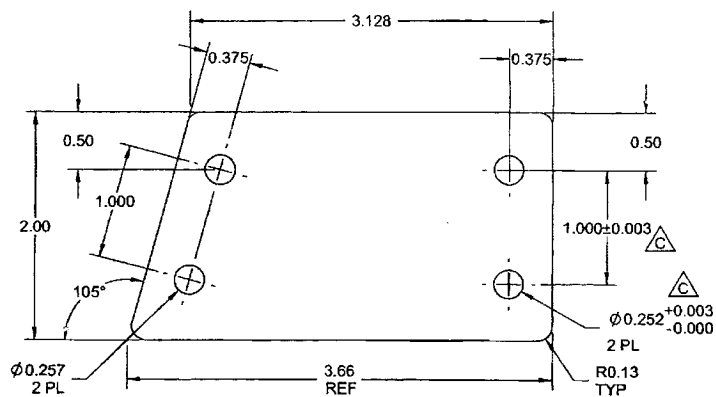
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4151-04X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT:
 - D4151-041 = 0.88 lbs
 - D4151-043 = 1.17 lbs

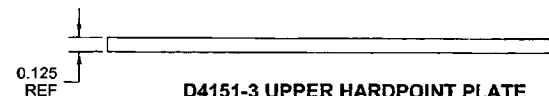
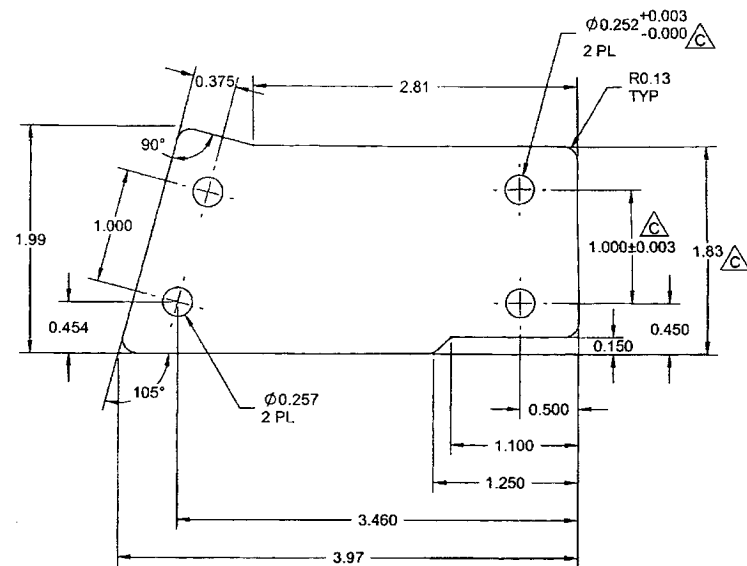
DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4151** REV. C
SHEET 1 OF 3
TITLE **BASKET FWD HARDPOINT** SCALE NTS

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D4151-1 LOWER HARDPOINT PLATE



D4151-3 UPPER HARDPOINT PLATE

RELEASED
R 2011-01-18
MD

NOTES:

1) MATERIAL: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B, 0.125 THK
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240
REF. DART SPEC. M304S11GA OR M303S11GA

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

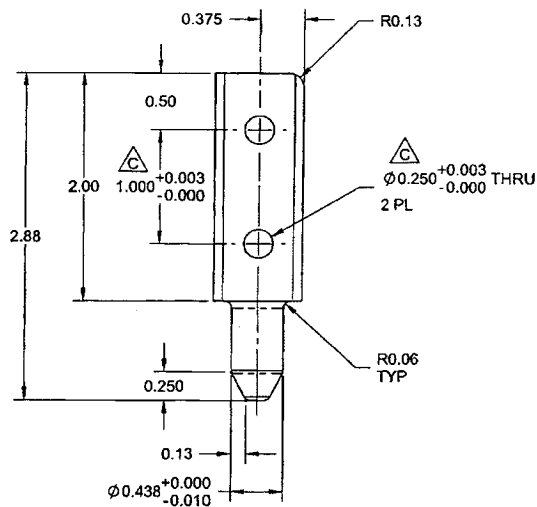
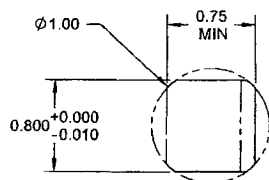
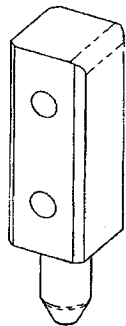
6) IDENTIFICATION: IDENTIFY AT ASSEMBLY

7) WEIGHT:

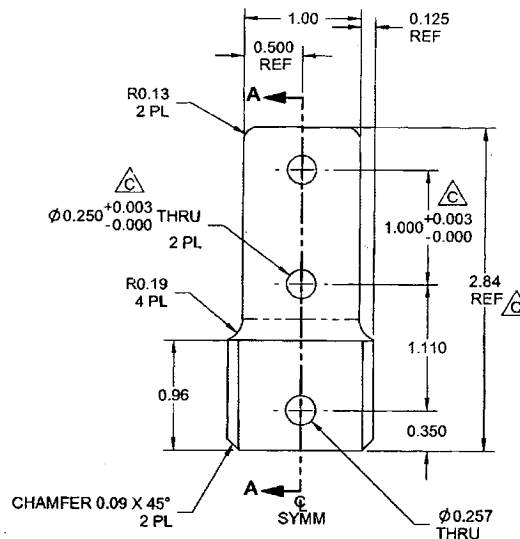
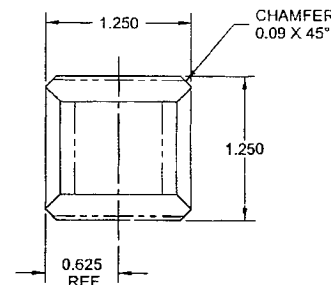
- D4151-1 = 0.24 lbs

- D4151-3 = 0.23 lbs

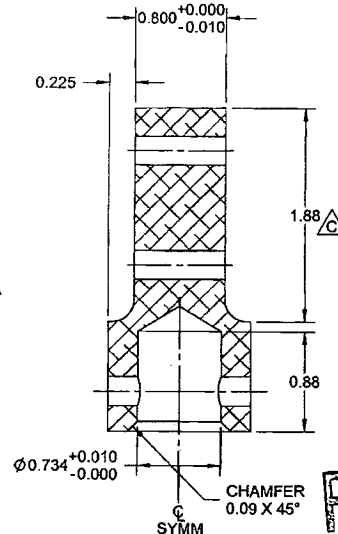
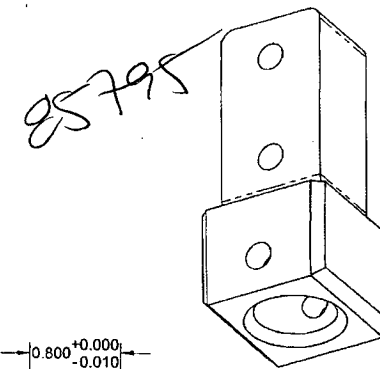
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4151	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BASKET FWD HARDPOINT	NTS
DATE	10.12.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D4151-5 FWD BASKET INSTL STUD (LOWER)



D4151-7 FWD EYEBOLT RECEIVER (UPPER)



SECTION A-A

NOTES:

- 1) MATERIAL -5: 303/304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276 OR ASTM A582 PER DART SPEC M303R OR M304R
- 7: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276 OR ASTM A582 PER DART SPEC M303B OR M304B
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY AT ASSEMBLY
- 7) WEIGHT -5: 0.36 lbs
-7: 0.70 lbs

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	JB			
CHECKED	SC		DRAWING NO.	REV. C
MFG. APPR.			D4151	SHEET 3 OF 3
APPROVED			TITLE	SCALE
DE APPR.			BASKET FWD HARDPOINT	NTS
DATE	10.12.14	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR LOANED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		

RELEASED
2011-01-30
RELEASED